

Amendments to the Claims

1. (Currently Amended) Apparatus for detecting wafer flat shift, comprising:
a plurality of sensors and a relay circuit for operating a solenoid in a power supply circuit for shutting off wafer fabrication equipment, the sensors detecting a shift in wafer flat position; and the power supply circuit shutting off the wafer fabrication equipment.
2. (Previously Presented) The apparatus of claim 1, further comprising:
the sensors being adjusted to detect a wafer flat shift in a plurality of directions of angular displacement.
3. (Previously Presented) The apparatus of claim 1, further comprising:
the sensors being adjusted to detect a wafer flat shift in a range of (2)(0.9⁰) to (5)(0.9⁰) angular displacement.
4. (Previously Presented) The apparatus of claim 1, further comprising:
a frame; and
an adjustable mounting mechanism mounting each of the sensors on the frame for adjustment along orthogonal axes.
5. (Previously Presented) The apparatus of claim 1, further comprising:
a frame; and
the sensors being adjustably mounted on the frame.
6. (Currently Amended) The apparatus of claim 1, ~~further comprising: wherein the a-relay receiving receives~~ signals from the sensors; and

a the solenoid operated by the relay to open a door of the wafer fabrication equipment to release a corresponding wafer for further fabrication; and
a wafer flat shift shutting off at least one of the signals from the sensors.

7. (Currently Amended) A method of detecting wafer flat shift comprising the steps of;

detecting a wafer flat shift by an optical beam sensor, sending a signal from the sensors to a solenoid through a relay; and

shutting off a wafer fabrication equipment when the wafer flat shift exceeds a set amount.

8. (Previously Presented) The method as recited in claim 7, further comprising the step of:

detecting a wafer flat shift in a plurality of directions of angular displacement.

9. (Previously Presented) The method as recited in claim 7, further comprising the step of:

detecting the wafer flat shift by optical beam sensors.

10. (Previously Presented) The method as recited in claim 7, further comprising the step of:

detecting a wafer flat shift in a range of (2)(0.9⁰) to (5)(0.9⁰) angular displacement.

11. (Previously Presented) The method as recited in claim 7, further comprising the steps of:

detecting the wafer flat shift by optical beam sensors; and
adjusting the positions of the sensors.

12. (Currently Amended) The method as recited in claim 7, further comprising the steps of:

~~detecting the wafer flat shift by optical beam sensors;~~

~~sending signals from the sensors to a relay;~~

operating [[a]] the solenoid by the relay to open a door of the wafer fabrication equipment to release a corresponding wafer for further fabrication; and

shutting off at least one of the signals from the sensors by the wafer flat shift.

13. (Previously Presented) The method as recited in claim 12, further comprising the step of:

detecting a wafer flat shift of (2)(0.9⁰) angular displacement.

14. (Previously Presented) The method as recited in claim 12, further comprising the step of:

detecting a wafer flat shift of (5)(0.9⁰) angular displacement.

15. (Previously Presented) A control circuit, comprising:

sensors to detect an edge of a wafer flat on a wafer;

a power supply supplying power to the sensors;

a relay activated by outputs of the sensors;

a solenoid activated by the relay to unlock a door for exit of the wafer to equipment for further wafer fabrication; and

at least one of the sensors sensing a wafer flat shift, which shuts off the equipment.

16. (Previously Presented) The control circuit of claim 15, further comprising:

the sensors being set to detect a wafer flat shift of (2)(0.9⁰) angular displacement.

17. (Previously Presented) The control circuit of claim 15, further comprising:
the sensors being set to detect a wafer flat shift of (5)(0.9⁰) angular displacement.
18. (Previously Presented) The control circuit of claim 15, further comprising:
the sensors being mounted for adjustment along orthogonal axes corresponding to
the a wafer flat shift in angular displacement.
19. (Previously Presented) The control circuit of claim 15, further comprising:
the sensors being adjustable on the frame.
20. (Previously Presented) The control circuit of claim 15, further comprising:
the sensors being adjustable along orthogonal axes.